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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,927	01/07/2005	Masaru Makagawa	256443US0XPCT	2154

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EXAMINER	
WU, IVES J	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/501,927	MAKAGAWA ET AL.	
	Examiner	Art Unit	
	Ives Wu	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/25/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 contains the trademark/trade name Aerosil. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe fine powder silica and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al (US006667359B1) in view of Maletzko et al (US006864298B2).

Nakagawa et al disclose a polypropylene composition comprising 55 to 60 wt% of propylene/ethylene block polymer; 20 to 25 wt% of rubber comprising a styrene/ethylene/propylene/styrene block copolymer and/or a styrene/ethylene/1-butene/styrene block polymer and an olefinic elastomer; 18 to 23 wt% of talc. Abstract.

As to the polypropylene-based composite resin in **independent claims 1,2 and 3**, Nakagawa et al disclose the polypropylene composition comprising:

55 to 60 wt% of a propylene-ethylene block copolymer comprising components A, B and C:

(A) a component of 85 to 96 wt% having an intrinsic viscosity [η] (in decalin of 135 °C) of 0.6 to 0.95 dl/g and a stereoregularity index of at least 98.8%, and is insoluble in p-xylene at 25 °C, and boiling n-heptane;

(B) a component of 4 to 15 wt% having an intrinsic viscosity [η] (in decalin of 135 °C) of 5 to 11 dl/g, containing 15 to 37wt% of a unit derived from ethylene, soluble in p-xylene at 25 °C with a melt index at 230 °C. and at 2.16 kgf of 110.200 and 20;

(C) polyethylene component having MI of 110-200 (230 °C and 2.16 kgf);

20 to 25 wt% of rubber comprising components D and E:

(D) a styrene/ethylene/propylene/styrene block copolymer and/or a

styrene/ethylene/1-butene/styrene block copolymer, each having melt index of 1 to 10 g/10 min (230 °C, 2.16 kgf);

(E) an olefinic elastomer having melt flow 0.5 to 5g/10 min (230 °C, 2.16 kgf)

18 to 23 wt% of component F:

talc having an average particle diameter as measured by laser diffraction method of 3-6 μm.

Nakagawa et al do not teach 0.3 to 10 wt% of fine powder silica having a primary particle diameter of 0.1 μm or less and 0 to 0.3 wt% of a nucleating agent.

However, Maletzko et al teach examples of suitable nucleating agents are talc, fumed silica, unmodified or modified bentonites, Col. 3, line 54-56, and from 0.01 to 8 parts by weight of a fine-particle nucleating agent, Col. 3, line 48-50. Examples of those suitable antiblocking agent are fine-particle silica, talc and bentonite, Col. 4, line 44-45, and preferably from 0.01 to 0.5 wt% of antiblocking agents, Col. 4, line 40-41. Also illustrated in examples, Antiblock: Aerosil R 972 (10, 16 wt%). The average primary particle size of Aerosil R 972 is 16 nm, (STOCHEM, website).

The advantage of using fine powder silica in the polypropylene based resin composite is to prevent the pulverulent anticaking agents from blocking, Col. 4, line 42-44.

The advantage of using nucleating agent in the polypropylene based resin composite is to increase the rate of crystallization at a given temperature which is well known in the art because polypropylene has high crystallinity, further evidenced by Johnson et al (US006485589B1) on Col. 7, line 62-63.

Therefore, it would have been obvious at time the invention was made to include the amount of fine powder silica and nucleating agent of Maletzko et al in the polypropylene based resin composite of Nakagawa et al in order to achieve the aforementioned advantages.

As to the measurement of complex viscosity, shear storage moduli on different conditions in **independent claim 1** and capillary viscosity, crystallization temperature measured by DSC in **dependent claim 2**, in view of substantially identical polypropylene based resin composite disclosed by combined teaching of Nakagawa et al and Maletzko et al, and disclosed by applicant, it is the examiner's position to believe that the polypropylene based resin composite of

combined prior arts will inherently possess these physical properties of complex viscosity, shear storage moduli measured on the conditions cited in the applicant's claim 1 and the physical properties of capillary viscosity of 100 Pa.s or less, crystallization temperature of 120 C or higher cited in the applicant's claim 2. Since USPTO does not have proper means to conduct the experiments, the burden is now shifted to the applicant to prove otherwise. *In re Best,* 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); *In re Fitzgerald,* 205 USPQ 594 (CCPA 1980).

As to the elastomer to be a copolymer of ethylene and α-olefin in **dependent claim 4**, Nakagawa et al disclose the preferable olefinic elastomer as the component E to be ethylene/1-butene rubber or ethylene/1-octene rubber, Col. 3, line 48-50.

As to the elastomer to be triblock copolymer SEBS or SEPS in the **dependent claim 5**, Nakagawa et al disclose a styrene/ethylene/propylene/styrene block copolymer and/or a styrene/ethylene/1-butene/styrene block copolymer in the polypropylene based resin composite, Col. 3, line 27-29.

As to the elastomer comprising a copolymer of ethylene and α-olefin and at least one triblock copolymer selected from SEBS and SEPS in the **dependent claim 6**, Nakagawa et al disclose component (E) to be an olefinic elastomer of ethylene and α-olefin, component (D) to be a SEPS and/or SEBS triblock copolymer, Col. 3, line 28-35, line 48-50.

As to the fine powder silica to be Aerosil in the polypropylene based composite in dependent claim 7, Maletzko et al disclose Aerosil R 972 in examples, Col. 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ives Wu whose telephone number is 571-272-4245. The examiner can normally be reached on 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: Ives Wu
Art Unit: 1713

Date: August 30,2005

DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700